

REMARKS

Upon entry of this Amendment, claims 1-6 are pending. Claims 1 and 4 have been amended herein. Newly-submitted claim 5 includes a previous limitation of claim 4. Claims 1-4 have been rejected. Newly-submitted claim 6 provides a method, support for which is provided throughout the specification, including, for example, at pages 8-10. Reconsideration and allowance of all pending claims are hereby requested in view of the remarks below.

Drawings

Applicant is required to furnish a drawing under 37 C.F.R. §1.81. Applicant submits herewith two figures. Applicant notes that Figure 1 is based on the figure in the international application PCT/DE99/02613, from which this application has been filed under 35 U.S.C. §371. Figure 2 is also provided to illustrate the optional air channels disclosed in the specification as filed. No matter is provided by the entry of these drawings.

The Office Action also asserts that at least one receiving member being adjustable along a longitudinal axis and a support sleeve having air channels should be shown. Applicant submits that at least one receiving member 3 adjustable along a longitudinal axis 9 is illustrated in Figures 1 and 2. Also, air channels 10 are shown in the support sleeve 6 of Figure 2. Applicant notes that various amendments have been made to the specification to insert the element numbers as used in the Figures.

Specification

Applicant is required to submit an Abstract of the disclosure under 37 C.F.R. §1.72(b).

Applicant submits herewith an Abstract on a separate sheet.

Claim Rejections – 35 U.S.C. §112

Claims 1-4 are rejected under 35 U.S.C. §112 , first paragraph, as allegedly containing subject matter which is not described in the specification so as to convey to one skilled in the art that the inventor had possession of the claimed invention at the time of filing of the application. The disclosure of structure for allowing the receiving member to be adjustable along the longitudinal axis, thereby varying the distance between the receiving members, is asserted to not be sufficiently disclosed. Furthermore, the support sleeve having air channels is also asserted to be insufficiently disclosed. Applicant traverses these rejections.

“The claimed invention as a whole may not be adequately described if the claims require an essential or critical feature which is not adequately described in the specification and which is not conventional in the art or known to one of ordinary skill in the art.” §2163 Manual of Patent Examining Procedure, 8th Edition, Revision 1, Feb. 2003 (emphasis added).

Applicant asserts that the above-recited features are within the purview of one of ordinary skill in the art upon review of the specification. For example, regarding the movement of the receiving members, Applicant directs the Examiner’s attention to the specification at page 5, lines 15-22 and page 9, lines 3-10.

Applicant submits that an adjustability of at least one receiving member along a longitudinal axis is known to one of ordinary skilled in the art upon review of the specification. Furthermore, Applicant disputes that structure for adjustability is a positively claimed element, as asserted on page 3 of the Office Action.

Regarding the air channels, Applicant directs the Examiner's attention to the specification at page 7, lines 13-17 and page 9, lines 24-33. Applicant notes that the specification indicates that the support sleeve has air channels along compressed air to be conveyed to the support sleeve and the outer sleeve to be slipped on in the fashion typical of flexography. Applicant notes that the cited Nelson reference, U.S. Patent No. 5,904,095, indicates an example of arrangement of air ducts in the art. The mandrel 28 of Nelson is provided with air passageways 38, thereby providing an example of air channels in the art.

In view of the above remarks, Applicant submits that the rejection of claims 1-4 under 35 U.S.C. §112, first paragraph, is improper and should be withdrawn.

Claims 1-4 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant traverses this rejection. However, in order to expedite allowance of the application, Applicant has amended claims 1 and 4 and submitted a new dependent claim 5. Applicant submits that in view of the amendments, the rejection should be withdrawn.

Claim Rejections – 35 U.S.C. §102

Claims 1 and 2 are rejected under 35 U.S.C. §102(b) as being anticipated by Crowley et al. (U.S. 5,472,153). Applicant traverses this rejection.

Applicant asserts that Crowley does not teach a holding device for a flexographic printing sleeve in which a receiving member is provided with a cylindrical lateral surface for mounting the printing sleeve, as recited in claim 1. Instead, Crowley involves a roll support and feed apparatus having a chuck that is used to engage a roll core of a roll 12. As further evidence of the differences between the present application and Crowley, Applicant notes that Crowley and the International Application version of the present application are classified in different international patent classes. Crowley is classified in B65H 16/10; B65H 23/185, while the version of the present application is classified in B41F 27/10, 13/20, B41C 1/18.

In view of the above remarks, Applicant submits that claim 1 is not anticipated by Crowley. Claim 2 is patentable at least by way of its dependency from claim 1.

Claim Rejections – 35 U.S.C §103

Claims 3 and 4 are rejected under 35 U.S.C. §103(a) as being unpatentable over Crowley et al. (U.S. 5,472,153) in view of Nelson (US 5,904,095). Applicant traverses this rejection.

Applicant objects to the combination of Nelson and Crowley. Specifically, Crowley is directed to a roll support and feed apparatus, used for supporting a roll of paper. Conversely, Nelson

is directed to a bridge mandrel for flexographic printing presses. Therefore, Nelson involves printing rollers and inking rollers. Because Crowley does not involve a holding device for a flexographic printing sleeve, Applicant submits that it is not obvious to combine Crowley and Nelson. As such, Applicant disputes that it would have been obvious to modify Crowley to provide a sleeve as taught by Nelson for quickly replacing a printing sleeve in a printing press, as asserted in a sentence bridging pages 4 and 5 of the Office Action, as Crowley does not involve a printing sleeve. To properly combine references, an objective teaching leading to the combination must be shown. *In re Dembiczak*, 175 F.3d 994 (Fed. Cir. 1999). “The showing must be clear and particular.... Broad conclusory statements regarding the teaching of multiple references, standing alone, are not ‘evidence.’” *Id.*

Applicant submits that in the field of printing sleeves, configurations involving two receiving members are not known. For at least this reason, claim 1 is novel by reciting a receiving member and a second receiving member. Schultz, U.S. Pat. No. 5,507,228, shows a multi-part mandrel, but weld spots 43 signify that Schultz effectively discloses a unitary mandrel made of several parts. Nelson is an example of a one-part mandrel, while also noting the concept of forming a unitary mandrel of multiple pieces, see column 5, lines 37-39.

Regarding the rejection of claim 4, Applicant objects to the Examiner’s unsupported assertion that the use of reinforcing elements in the inner cavity of a support sleeve is conventional, without reference to the prior art. Applicant also notes that, even if such reinforcing elements are conventional, these elements have not been shown to be obvious in combination with all the limitations of claim 1, from which claim 4 depends.

In view of the above remarks, Applicant submits that the rejection of claims 3 and 4 under 35 U.S.C. §103(a) is improper and should be withdrawn. Applicant submits that claims 3 and 4, and newly submitted claim 5, are patentable at least by way of their dependency from claim 1.

Conclusion

In view of the remarks set forth above, it is respectfully submitted that this application is in condition for allowance. Accordingly, allowance is requested. If there are any remaining issues or the Examiner believes that a telephone conversation with the Applicant's attorney would be helpful in expediting prosecution of this application, the Examiner is invited to call the undersigned at (617) 227-7400.

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Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please amend claims 1 and 4 and add new claims 5 and 6 as follows.

1. (Twice Amended) Holding device for a flexographic printing sleeve, the holding device having at least one receiving member with a cylindrical lateral surface [onto which a] for mounting the printing sleeve [may be mounted], the receiving member being rotatable about a longitudinal axis of the printing sleeve, characterized in that

the receiving member has two or more shoulders of differing diameters and that a second, equivalent receiving member is provided, both receiving members being arranged and rotatable about the longitudinal axis,

and the receiving members with their smallest shoulders being aligned with each other,

and at least one receiving member being adjustable along the longitudinal axis to set [such that] a variable distance between both receiving members [may be set].

4. (Twice Amended) Device according to claim 1, characterized in that the sleeve [or the support sleeve] has reinforcing elements in an inner cavity.

5. (New) Device according to claim 1, characterized in that the support sleeve has reinforcing elements in an inner cavity.

6. (New) A method for the use of a holding device for holding a flexographic printing sleeve, the method comprising the steps of:

locating a support sleeve between said first receiving member and said second receiving member;

moving said first receiving member and said second receiving member toward each other to mount said support sleeve between said first receiving member and said second receiving member; and

mounting said flexographic printing sleeve to said support sleeve.

IN THE SPECIFICATION:

Please amend the paragraph bridging pages 8 and 9 of the specification as follows.

Both receiving members 3 are rotatable. Here the receiving member 3 shown at the left is held in the base indicated which represents a nondriven support. At the receiving member 3 shown at the right is a shaft end which leads to a machine base which contains a drive unit for this right-hand receiving member 3 such that the sleeve 2 may be caused to rotate. Deviating from this embodiment, both receiving members 3 may be rotationally driven synchronously. The right-hand receiving member 3 may be axially 9 displaced along with the shaft whose shaft end is indicated within a plain bearing of the machine base not shown, or possibly displaced together with the machine base, so as to position the sleeves 2 between the receiving members 3, or to remove them from the receiving members 3, as well as to adjust the distance between the receiving members 3 to the differing lengths of sleeves 2. The axial 9 displacement of the receiving member 3 may be

effected, for example, pneumatically since the mounting of sleeves is typically effected in flexography by compressed air.

Please amend the second full paragraph of page 8, lines 19-20, of the specification, as previously amended, as follows.

Figure 1 is a schematic view of the holding device of the present invention; and

Figure 2 is a schematic view of a holding device of the present invention having air channels.

Please amend the second full paragraph of page 9, lines 24-33, of the specification as follows.

The support sleeve 6 has air channels [not shown] 10 through which compressed air is conducted to the lateral surface of the support sleeve 6 so that the sleeve 2 may be attached in the familiar fashion to the support sleeve 6 to form the complete sleeve. Irrespective of the material used for the support sleeve 6, provision can be made to create the air channels out of pressure-resistant hoses or tubes, for example made of metal or plastic which may be arranged in the wall of the thick-walled support sleeves 6, for example having been molded in, foamed in or laminated in, and which may be fixed along the interior side of thin-walled support sleeves 6, for example

screwed in and/or glued. Passage bores may be provided to conduct the air from the air channels to the lateral surface of the support sleeve 6.

Please amend the fourth full paragraph of page 10, lines 28-33, of the specification as follows.

If no support sleeves are to be used, air channels 8 may be provided in the receiving members 3 in a manner similar to that for the familiar, comparatively large cylinders known in the field of flexography: Here the outlet openings for the air are provided in the lateral surfaces of the shoulders to expand the sleeves 2 and enable them to be slipped directly onto the receiving members 3. Outlet openings on shoulders not used may be blocked or closed by means of suitable valves or plugs.

IN THE DRAWINGS:

Please place the enclosed drawings in the file.

IN THE ABSTRACT:

Please place the enclosed abstract in the file.